

CLAIMS

1. A description document for a service offered by a server (S) in a communication network (10), comprising a first abstract part adapted to describe at least one message exchanged over the communication network (10) when said service is implemented and a second concrete part adapted to describe the information relating to the transmission of said messages over the communication network, characterized in that it comprises, in said first abstract part, a description of abstract constraints associated with a binary multimedia document.

2. A service description document, characterized in that said description of abstract constraints is represented using the semantics of a description language of a content of a binary multimedia document.

3. A service description document according to one of Claims 1 to 2, characterized in that said description of abstract constraints is represented using the semantics defined by the MPEG7 standard.

4. A service description document according to one of Claims 1 to 3, characterized in that said description of abstract constraints is represented in a mark-up language of the XML type.

5. A service description document according to one of Claims 1 to 4, characterized in that said description of abstract constraints is represented in a schema language such as XML-Schema or Relax-NG, tags being defined using the semantics of the MPEG7 standard.

6. A service description document according to one of Claims 1 to 4, characterized in that said description of abstract constraints is represented in a description language of a content of the multimedia document, said tags being adapted to integrate directly or by reference attributes represented in a schema mark-up language such as XML-Schema.

7. A service description document in accordance with Claim 6, characterized in that the description language of a content of a multimedia document is defined according to the MPEG7 standard.

8. A service description document according to one of Claims 1 to 4, characterized in that said description of abstract constraints is represented in a schema language such as Schematron adapted to define a set of minimum constraints.

5           9. A service description document according to one of Claims 1 to 8, characterized in that said description of abstract constraints is inserted in a sub-part of said first abstract part adapted to describe an abstract structure of the messages exchanged.

10           10. A service description document according to Claim 9, characterized in that said first abstract part comprises a second sub-part adapted to declare at least one elementary message pointing to said description of abstract constraints.

15           11. A service description document according to Claim 10, characterized in that said elementary message is associated with an attribute adapted to specify that the message comprises a binary multimedia content type.

20           12. A method of producing a request for a service offered by a server (S) in a communication network (10), said service being described in a service description document according to one of Claims 1 to 11, characterized in that it comprises the following steps:

- reading (E20) said description document of a service;
- selecting (E21) a first abstract part adapted to describe at least one message exchanged over the communication network when an operation associated with said service is implemented;
- 25           - extracting (E22) a description of abstract constraints associated with a binary multimedia document;
- selecting (E23) a binary multimedia document according to said description of abstract constraints; and
- 30           - producing (E26) a request intended for the server in the communication network including said binary multimedia document selected.

13. A method of validating a multimedia document when a service offered by a server (S) in a communication network (10) is implemented, the

service being associated with a service description document, characterized in that it comprises the following steps:

- acquiring (E10) the multimedia document;
- extracting (E11) a description of abstract constraints associated
- 5 with a binary multimedia document from said description document of a service;
- extracting (E12) a content description associated with said multimedia document; and
- comparing (E13) said content description and the description of abstract constraints extracted from the service description document.

10 14. A method of validating according to Claim 13, characterized in that said description of abstract constraints is represented in a language describing a content of a multimedia document.

15 15. A method of validating according to one of Claims 13 or 14, characterized in that the language describing a content of the multimedia document is defined under the MPEG7 standard.

16. A method of validating according to one of Claims 13 to 15, characterized in that, at the extraction step (E12), an MPEG7 description of the multimedia document inserted in said multimedia document is extracted.

20 17. A method of validating according to one of Claims 13 to 16, characterized in that it is implemented during a step (E23) of selecting a multimedia document to be inserted in message exchanged during the implementation of a service offered by a server in the communication network.

25 18. A method of validating according to one of Claims 13 to 16, characterized in that it is implemented during a step (E31) of validating a request received by a server in a communication network for implementing a service described in a service description document.

30 19. A device for producing a request for a service offered by a server in a communication network, said service being described in a service description document in accordance with one of Claims 1 to 11, characterized in that it comprises:

- means (100, 101, 102) for reading said description document of a service;

- means (100, 101, 102) for selecting a first abstract part adapted to describe at least one message exchanged over the communication network when an operation associated with said service is implemented;

- means (100, 101, 102) for extracting a description of abstract constraints associated with a binary multimedia document;

- means (100, 101, 102) for selecting a binary multimedia document according to said description of abstract constraints; and

- means (100, 101, 102) for producing a request intended for the server in the communication network including said binary multimedia document selected.

20. A device for producing a request for a service in accordance with Claim 19, characterized in that it is incorporated in:

- a microprocessor (100);

- a read only memory (101) adapted to store a program for producing a request for a service; and

- a random access memory (102) comprising registers adapted to store the variables modified during the running of said program.

21. A device for validating a multimedia document during the implementation of a service offered by a server in a communication network, the service being associated with a service description document, characterized in that it comprises:

- means (100, 101, 102) for acquiring the multimedia document;

- means (100, 101, 102) for extracting a description of abstract constraints associated with a binary multimedia document from the description document of a service;

- means (100, 101, 102) for extracting a content description associated with said multimedia document; and

- means (100, 101, 102) for comparing said content description and the description of abstract constraints extracted from the service description document.

22. A device for validating according to Claim 21, characterized in that it is incorporated in:

- a microprocessor (100);
- a read only memory (101) adapted to store a program validating a multimedia document; and
- a random access memory (102) comprising registers adapted to store variables modified during the running of said program.

23. A server computer in a communication network, characterized in that it comprises means adapted to implement the validation method according to one of Claims 13 to 18.

24. A client computer in a communication network, characterized in that it comprises means adapted to implement the validation method according to one of Claims 13 to 18.

25. A client computer in a communication network, characterized in that it comprises means adapted to implement the method of producing a request in accordance with Claim 12.

26. A communication network, characterized in that it comprises means adapted to implement the validation method according to one of Claims 13 to 18.

27. A communication network, characterized in that it comprises means adapted to implement the method of producing a request in accordance with Claim 12.

28. An information storage means, possibly totally or partially removable, which can be read by a computer system, comprising instructions for a computer program adapted to implement the method of validating a multimedia document in accordance with one of Claims 13 to 18, when this program is loaded in and run by the computer system.

29. An information storage means, possibly totally or partially removable, which can be read by a computer system, comprising instructions for a computer program adapted to implement the method of producing a request according to Claim 12, when this program is loaded in and run by the computer system.

30. A computer program which can be read by a microprocessor, comprising portions of software code adapted to implement the method of

validating a multimedia document according to one of Claims 13 to 18, when this computer program is loaded in and run by the microprocessor.

31. A computer program which can be read by a microprocessor, comprising portions of software code adapted to implement the method of producing a multimedia document according to Claim 12, when this computer program is loaded in and run by the microprocessor.
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